Serial Number: 10/698,026

Filing Date: October 30, 2003

ENERGY DELIVERY OPTIMIZATION FOR RF DUTY CYCLE FOR LESION CREATION

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## **IN THE CLAIMS**

Please amend the claims as follows:

## 1-15. (Cancelled)

16. (Currently Amended) A system for delivering RF energy to an endocardial tissue, the system comprising:

a catheter having one or more electrodes proximate a distal end of the catheter, the catheter adapted configured for being positioned such that the one or more electrodes are adjacent the endocardial tissue, at least one of the electrodes including a tip electrode having a thermal time constant of approximately 240 ms; and

a power control system <u>configured</u> to provide power to the tip electrode, the power having a plurality of alternating on portions and off portions, one set of adjacent on and off portions defining a duty cycle;

wherein the power control system delivers an energy pulse of between approximately 0.01 ms to 4 ms via the tip electrode, and the on portions and off portions of the duty cycle have a ratio of between 50% - 100%.

- 17. (Previously Presented) The system of claim 16, wherein the duty cycle chosen ranges from 80% to 100%.
- 18. (Currently Amended) The system of claim 16, wherein the <del>platinum</del> tip electrode includes an approximately 5 mm tip with a diameter of approximately .094 inches.
- 19. (Previously Presented) The system of claim 16, wherein the RF energy has a period of between 120 ms and 240 ms.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 - EXPEDITED PROCEDURE

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20. (Previously Presented) The system of claim 16, wherein the RF energy has a period of greater than 240 ms.

- 21. (Currently Amended) The system of claim 16, wherein one of the one or more electrode includes a tip electrode the duty cycle ranges from 80% to 100%.
- 22. (Original) The system of claim 16, wherein one of the one or more electrodes includes a ring electrode.

23-28. (Cancelled)